

*Progressive Education Society's*  
**Modern College of Arts, Science and Commerce (Autonomous),  
Shivajinagar, Pune 5**

**(An Autonomous College Affiliated to Savitribai Phule Pune University)**

# **Framework of Syllabus**

**For**

**B. Sc. (Statistics)**

Choice Based Credit System (CBCS) Syllabus  
Under National Education Policy (NEP)

**To be implemented from Academic Year 2024-2025**

**Level:- 4.5 (First Year) Sem:I**

Course Type	Course Code	Course Title	Credits		Teaching Scheme Hr/Week		Evaluation Scheme and Max Marks		
			TH	PR	TH	PR	CE	ESE	Total
Subject 1 T(2)+ (T/P) (2) or T(4)	24ScStaU1101	Descriptive Statistics	2		2		20	30	50
	24ScStaU1102	Lab Course on 24ScStaU1101		2		4	20	30	50
Subject 2 T(2)+ (T/P) (2) or T(4)	24ScStaU1201	<<Subject 2 Theory>>	2		2		20	30	50
	24ScStaU1202	<<Subject 2 Practical>>		2		4	20	30	50
Subject 3 T(2)+ (T/P) (2) or T(4)	24ScStaU1301	<<Subject 3 Theory>>	2		2		20	30	50
	24ScStaU1302	<<Subject 3 Practical>>		2		4	20	30	50
IKS T(2)	24CpCopU1901	Generic IKS	2		2		20	30	50
GE/OE (T/P) (2)	24ScStaU1401	Fundamentals of Statistics I	2		2		20	30	50
SEC (P) (2)	24ScStaU1601	Lab Course on Data Analysis Using MS-EXCEL	2		2		20	30	50
AEC T(2)	24CpCopU1701 / 24CpCopU1702	MIL-I (Hindi) / MIL-I (Marathi)	2		2		20	30	50
VECT (2)	24CpCopU1801	Environment Science	2		2		20	30	50
<b>Total</b>			16	06	16	06			550

**Level:- 4.5 (First Year) Sem:II**

Course Type	Course Code	Course Title	Credits		Teaching Scheme Hr/Week		Evaluation Scheme and Max Marks		
			TH	PR	TH	PR	CE	ESE	Total
Subject 1 T(2)+ T/P(2) or T(4)	24ScStaU2101	Discrete Probability Distributions	2		2		20	30	50
	24ScStaU2102	Lab Course on 24ScStaU2101		2		4	20	30	50
Subject 2 T(2)+ P(2)	24Sc***U2201	<<Subject 2 Theory>>	2		2		20	30	50
	24Sc***U2302	<<Subject 2 Practical>>		2		4	20	30	50
Subject 3 T(2)+ P(2)	24Sc***U2301	<<Subject 3 Theory>>	2		2		20	30	50
	24Sc***U2302	<<Subject 3 Practical>>		2		4	20	30	50
GE/OE (T/P)(2)	24ScStaU2401	Fundamentals of Statistics II	2		2		20	30	50
SEC P(2)	24ScStaU2601	Lab Course on MS-EXCEL for Discrete Probability Models		2		4	20	30	50
AEC T(2)	24CpCopU2703	English Communication Skills I	2		2		20	30	50
VEC T(2)	24CpCopU2801	Democracy, Election and Governance	2		2		20	30	50
CC(2)	24CpCopU2001/ 24CpCopU2011 /	Physical Education / Cultural Activities /	2		2		20	30	50

	24CpCopU2021 / 24CpCopU2031 / 24CpCopU2041 / 24CpCopU2051 / 24CpCopU2061 / 24CpCopU2071	NSS / NCC / Fine Arts / Applied Arts / Visual Arts / Performing Arts							
<b>Total</b>			14	08	14	16			550

**Level:- 5.0 (Second Year) Sem:III**

Course Type	Course Code	Course Title	Credits		Teaching Scheme Hr/Week		Evaluation Scheme and Max Marks		
			TH	PR	TH	PR	CE	EE	Total
Major Core T(2+2 or 4), (T/P)(2)	24ScStaU3101	Discrete Probability Distributions and Time Series Analysis	4		4		20	30	50
	24ScStaU3102	Lab Course on 24ScStaU3101	2		2		20	30	50
VSC P(2)	24ScStaU3501	Practicals on Operation Research		2		4	20	30	50
IKS (T/P)(2)	24ScStaU3901	Indian official Statistics	2		2		20	30	50
FP P(2)	24ScStaU3002	Field Project I		2		4	20	30	50
Minor (T/P)(2+2 or 4)	24ScStaU3301	Some Standard Continuous Probability Distributions		2		4	20	30	50
	24ScStaU3302	Lab Course on 24ScStaU3301		2		4	20	30	50
GE/OE (T/P)(2)	24ScStaU3401	Applied Statistics I		2		4	20	30	50
AEC T(2)	24CpCopU3703	English Communication Skills II	2		2		20	30	50
CC T(2)	24CpCopU3001	Online Course on Yoga	2		2		20	30	50
<b>Total</b>			12	10	12	20			550

**Level:- 5.0 (Second Year) Sem:IV**

Course Type	Course Code	Course Title	Credits		Teaching Scheme Hr/Week		Evaluation Scheme and Max Marks		
			TH	PR	TH	PR	CE	EE	Total
Major Core T(2+2 or 4), (T/P)(2)	24ScStaU4101	Continuous Probability Distributions	4		4		20	30	50
	24ScStaU4102	Lab Course on 24ScStaU4101		2		4	20	30	50
VSC P(2)	24ScStaU4501	Statistics Using R Software I		2		4	20	30	50
CEP P(2)	24ScCopU4003	Community Engagement Project		2		4	20	30	50
Minor (T/P)(2+2 or 4)	24ScStaU4301	Testing of hypotheses	2		2		20	30	50
	24ScStaU4302	Lab Course on 24ScStaU4301		2		4	20	30	50
GE/OE (T/P)(2)	24ScStaU4401	Applied Statistics II		2		4	20	30	50
SEC T(2)	24ScStaU4601	Lab Course on C Programming	2		2		20	30	50

AEC T(2)	24CpCopU4701 / 24CpCopU4702	MIL-II (Hindi) / MIL-II (Marathi)	2		2		20	30	50
CC T(2)	24CpCopU4001	Health and Wellness	2		2		20	30	50
<b>Total</b>			12	10	12	20			550

**Level:- 5.5 (Third Year) Sem:-V**

Course Type	Course Code	Course Title	Credits		Teaching Scheme Hr/Week		Evaluation Scheme and Max Marks		
			TH	PR	TH	PR	CE	EE	Total
Major Core T(2+2+2+2 or 4 + 2+2 or 4 + 4) P(2+2 or 4)	24ScStaU5101	Distribution Theory	4		4		20	30	50
	24ScStaU5102	Statistical Inference	4		4		20	30	50
	24ScStaU5103	Data Mining	2		2		20	30	50
	24ScStaU5103	Lab Course on 24ScStaU5101 & 24ScStaU5102	2		2		20	30	50
Major Elective (T/P) (2+2 or 4)	24ScStaU5201	Regression Analysis	2		2		20	30	50
	24ScStaU5203	Lab Course on 24ScStaU5201		2		4	20	30	50
	24ScStaU5203	Stochastic Processes	2		2		20	30	50
	24ScStaU5204	Lab Course on 24ScStaU5203		2		4	20	30	50
VSC P(2)	24ScStaU5501	Lab Course on Statistical Analysis using Python Programming		2		4	20	30	50
FP (2)	24ScStaU5001	Field Project II		2		4	20	30	50
Minor (T/P) (2)	24ScStaU5302	Applied Statistics	2		2		20	30	50
<b>Total</b>			18	08	18	16			550

**Level:- 5.5 (Third Year) Sem:-VI**

Course Type	Course Code	Course Title	Credits		Teaching Scheme Hr/Week		Evaluation Scheme and Max Marks		
			TH	PR	TH	PR	CE	EE	Total
Major Core T(2+2+2+2 or 4+2+2 or 4+4) P(2+2 or 4)	24ScStaU6101	Sampling Theory and Statistical Quality Control	4		4		40	60	100
	24ScStaU6102	Reliability Theory and Survival Analysis	4		4		40	60	100
	24ScStaU6103	Actuarial Statistics	2		2		20	30	50
	24ScStaU6104	Lab Course on 23ScMat6101 & 23ScMat6102		2		4	20	30	50
Major Elective (T/P) (2+2 or 4)	24ScStaU6201	Design of Experiments	2		2		20	30	50
	24ScStaU6202	Lab Course on 24ScStaU6201		2		4	20	30	50
	24ScStaU6203	Medical Statistics	2		2		20	30	50

	24ScStaU6204	Lab Course on 24ScStaU6203		2		4	20	30	50
VSC P(2)	24ScStaU6501	Lab Course on Operations Research		2		4	20	30	50
OJT (2)	24ScStaU6004	On Job Training		4		8	40	60	100
<b>Total</b>			14	12	14	24			550